application. Reconsideration of this application is respectfully requested. A Petition and fee for a one month extension of time is enclosed.

Minor errors in the specification were found and corrected by this amendment. Entry of the specification amendments is respectfully requested.

The drawings were objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "30" (p. 12 line 19) and " 130" (Fig. 3) have both been used to designate the source of internet information. Enclosed are amended drawing figures having proposed corrections made thereto. Also enclosed are replacement reproducing masters including the proposed corrections. It is respectfully submitted that the amendments made to the drawings address the Examiner's objection. Entry of the amended drawings and replacement reproducing masters is respectfully requested. Withdrawal of the Examiner's objection is respectfully requested.

The drawings were objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 101-109, 201-211, 301-311, 401-409, 501-506, 601 and 602 all in Fig. 2. Enclosed are amended drawing figures having proposed corrections made thereto. Also enclosed are replacement reproducing masters including the proposed corrections. It is respectfully submitted that the amendments made to the drawings address the Examiner's objection. Entry of the amended drawings and replacement reproducing masters is respectfully requested. Withdrawal of the Examiner's objection is respectfully requested.

Claim 22 was objected to because of an informality noted by the Examiner. Claim 22 has been amended to address the Examiner's issue. It is respectfully submitted that the amendments made to Claim 22 remedy the informality. Accordingly, withdrawal of the Examiner's objection is respectfully requested.

Claim 26 was objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 26 has been canceled and thus the objection is considered moot.

Claims 1-8, 10-13, 16, 17, 19-21, 23 and 24 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,963,862 issued to Adiwoso et al. Independent Claims 1 and 11 have been amended to clearly distinguish over the Adiwoso et al. patent. It is respectfully submitted that independent Claims 1 and 11 are not anticipated by, nor is it obvious in view of, the Adiwoso et al. patent.

The Adiwoso et al. patent discloses an "integrated telecommunications system provides fixed and mobile satellite-based services via one or more geosynchronous satellites. Two-way user links are provided by the satellites to user terminals located throughout a geographical region. Additionally, the satellites provide two-way access links to gateway stations within the region, and also to a satellite network control center. The network control center controls bandwidth and power of the satellites to establish the user links and the access links. A mobile

cellular telephone network provides mobile cellular telephone service to a subscriber that also has a user terminal. A gateway station includes a gateway station controller coupled to a mobile switching center, which, in turn, is coupled to a terrestrial network. The gateway station controller provides control signals route calls to either the user terminal or the mobile cellular telephone of the subscriber based on a single dialed number."

Amended independent Claim 1 calls for "at least one user terminal having two-way communication with the two-way communication link and comprising a cache for selectively caching data broadcast by way of the satellite of the two-way communication link". Amended independent Claim 11 calls for the step of "providing at least one user terminal having two-way communication with the two-way communication link and comprising a cache for selectively caching data broadcast by way of the two-way communication link".

It is respectfully submitted that the Adiwoso et al. patent does not disclose or suggest the use of a cache at user terminals that is used to selectively cache data broadcast by way of the satellite of the two-way communication link. The Examiner has, in essence, admitted this based upon the rejection of canceled Claims 9 and 18.

Therefore, it is respectfully submitted that Claims 1 and 11 are not anticipated by, nor are they obvious in view of, the Adiwoso et al. patent. Accordingly, withdrawal of the Examiner's rejection of Claims 1 and 11 is respectfully requested.

Dependent Claims 2-8, 10, 12, 13, 16, 17, 19-21, 23 and 24 are considered patentable based upon their dependence from allowable Claims 1 and 11. Accordingly, withdrawal of the Examiner's rejection of Claims 2-8, 10, 12, 13, 16, 17, 19-21, 23 and 24 is respectfully requested.

Claims 9 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,963,862 issued to Adiwoso et al in view of well-known prior art (NWEP 2144.03). Claims 9 and 18 have been canceled and the subject matter thereof has essentially been incorporated into independent Claims 1 and 11, respectively. Claims 1 and 11 will be addressed with regard to this obviousness rejection.

The Examiner's position is that "However, the examiner takes Official Notice that it is notoriously well-known in the art for a data communication terminal, in this case a standard computer, to comprise a cache and memory of that kind. It would have been obvious to one of ordinary skill in the art at the time of the invention for the terminal(s) taught by Adiwoso et al to further comprise a cache, so that standard data communications equipment can be used in implementing the transmission system which allows for lower cost." It is respectfully submitted that the Examiner's assertions are in error.

It is respectfully submitted that there is no prior art that the Examiner can cite that addresses the use of a cache for the purpose of caching data broadcast by way of a two-way asynchronous mode (high and low bandwidth) communication link, and in particular a satellite based asynchronous mode communication link. It is respectfully submitted that the Examiner

cannot find any reference dealing with satellite based (asynchronous) data transmission systems that employ caches in the user terminals. The Examiner's argument is therefore only conjecture and is based upon hindsight reconstruction. Furthermore, the Examiner's statement that "standard data communications equipment can be used in implementing the transmission system which allows for lower cost" is not understood. The addition of a cache to a computer system adds cost to the system and does not lower cost as is suggested by the Examiner.

Therefore, it is respectfully submitted that Claims 1 and 11 are not obvious in view of the Adiwoso et al. patent taken in view of the "well-known prior art" purportedly cited by the Examiner. It is respectfully submitted that the Examiner's rejection is based upon hindsight reconstruction based upon applicants' own teachings and not teachings of the prior art relating to satellite based communication systems. Accordingly, withdrawal of the Examiner's rejection of Claims 1 and 11 is respectfully requested.

Claims 14, 15, 22 and 25-28 were rejected under § 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,963,862 issued to Adiwoso et al in view of U.S. Patent No. 5,991,596 issued to Cunningham et al. The Cunningham et al. patent is cited by the Examiner as disclosing a backhaul channel for use in an information broadcast, data transmission system (or method).

It is respectfully submitted that the Cunningham et al. patent does not disclose or suggest the use of a cache in a user terminal of a two-way communication link for the purpose of caching data broadcast by way of the two-way communication link. In view of this and the above arguments regarding the Adiwoso et al. patent, it is respectfully submitted that the Adiwoso et al. and Cunningham et al. patents, taken singly or together, do not disclose or suggest the subject matter recited in Claim 11. Therefore, it is respectfully submitted that Claims 14 and 15 are not obvious in view of the Adiwoso et al. and Cunningham et al. patents, taken singly or together, Accordingly, withdrawal of the Examiner's rejection of Claims 14 and 15 is respectfully requested.

With regard to Claim 25 and the arguments above regarding the Adiwoso et al. and Cunningham et al. patents and well known prior art, it is respectfully submitted that the prior art references do not disclose or suggest a data transmission system comprising "at least one user terminal that communicates with the terrestrial communication link and the satellite broadcast link and that comprises a cache for caching the requested data broadcast by the satellite broadcast link" as is recited therein, and certainly not without the use of hindsight reconstruction on the part of the Examiner.

Therefore, it is respectfully submitted that Claim 25 is not obvious in view of the Adiwoso et al. and Cunningham et al. patents, taken singly or together, or in view of the "well known prior art" cited by the Examiner without the use of hindsight reconstruction, Accordingly, withdrawal of the Examiner's rejection of Claim 25 is respectfully requested.

Dependent Claims 27 and 28 are considered patentable based upon their dependence from allowable Claim 25. Accordingly, withdrawal of the Examiner's rejection of Claims 27 and 28 is respectfully requested.

Attached hereto is a marked-up version of the changes made to claims by the present amendment. The attached page is captioned "Version with markings to show changes made."

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure to the extent indicated by the Examiner.

In view of the above, it is respectfully submitted that all pending claims are not anticipated by, nor are they obvious in view of, the cited references, taken singly or together, or taken in view of well known prior art, without the use of hindsight reconstruction, and are therefore patentable. Therefore, it is respectfully submitted that the present application is in condition for allowance. Accordingly, reconsideration of this application and allowance thereof are earnestly solicited.

Respectfully submitted,

Kenneth W. Float
Registration No. 29,233

The Law Offices of Kenneth W. Float
Office address: 2 Shire, Coto de Caza, CA 92679
Mailing address: P. O. Box 80790, Rancho Santa Margarita, CA 92688

Telephone: (949) 459-5519
Facsimile: (949) 459-5520

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please amend the paragraph starting at page 4, line 24, to read as follows.

The low bandwidth communication link may be implemented using a Ka-band payload or satellite, for example, while the high bandwidth data broadcast link may be implemented using a Ku-band payload or satellite, for example. The at least one satellite provides "bent pipe" retransmission between a user terminal (consumer premises equipment) and the at least one gateway. The at least one user terminal preferably receives multicasts and data streaming using a high bandwidth link, and on-demand Internet access using a low bandwidth link [,]. The user terminals transmit Internet requests using a low bandwidth link. The user terminals may store multicast and streaming data in the cache.

Please amend the paragraph starting at page 5, line 11, as indicated.

Fig. 2 shows a map of the United States illustrating beam coverage [,] and gateway locations employed in the system shown in Fig. 1;

Please amend the paragraph starting at page 12, line 19, as indicated.

In a preferred embodiment of the present invention, requests are sampled (picked up or polled) by respective ones of the Ka-band spot beams in which the clients 125 are located, for example, and are relayed to the server area network 121. The server area network 121 retrieves the requested information, which is preferably located in the central cache 121a, or searches for and locates the information from one or more sources 130 [30] (that provide content or information) that are connected to the Internet 21, for example. Once the requested information is obtained, it is transmitted by way of the high bandwidth link to all local proxy servers 127-127b within the coverage area of the wide area Ku-band beam. Alternatively, the requested information is transmitted by way of the low bandwidth link to the local proxy servers 127-127b.

IN THE CLAIMS

Please cancel Claims 9, 18 and 26 without prejudice.
Please amend the following Claims as indicated.

1. (Amended) A data transmission system comprising:
a two-way communication link comprising at least one satellite;

at least one user terminal having two-way communication with the two-way communication link <u>and comprising a cache for selectively caching data broadcast by way of the</u>

5   <u>satellite of the two-way communication link</u>; and

at least one gateway having access to data and having two-way communication with the two-way communication link.

11. (Amended) A method of communication data comprising the steps of:

providing one or more orbiting satellites that comprise a two-way communication link;

providing at least one user terminal having two-way communication with the two-way communication link <u>and comprising a cache for selectively caching data broadcast by way of the</u>

5   <u>two-way communication link</u>;

providing at least one gateway having access to data and having two-way communication with the two-way communication link;

generating requests for data at the at least one user terminal;

transmitting the requests for data from the at least one user terminal by way of the two-

10   way communication link to the at least one gateway;

obtaining the requested data at the at least one gateway; and

transmitting the requested data from the at least one gateway to the at least one user terminal by way of the two-way communication link.

22. (Amended) The method recited in Claim [17] <u>21</u> further comprising the steps of:

storing the requested information at the at least one gateway; and

storing the related information at the at least one gateway.